Energy Division Staff Report

Recommendation to adopt the attached emergency rule to implement Distributed Generation Interconnection Standard

March 11, 2008

Introduction and Summary

On August 8, 2005, the President of the United States of America and the U.S. Congress passed into law the Energy Policy Act of 2005 ("EPAct"). The EPAct amends several sections of the Public Utilities Regulatory Policies Act ("PURPA") and instructs the states to consider for adoption several standards set out in Section 111(d) of PURPA. 16 U.S.C.S. et seq. Section 1254 of the EPAct specifically instructs the states to consider and determine the state's willingness to adopt "standards developed by the Institute of Electrical and Electronics Engineers: IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems." 16 U.S.C.S. 2621(d)(15).

Prior to the Electric Restructuring Act of 1997 ("Restructuring Act"), Illinois electric utilities were vertically integrated. That is, they built, maintained and operated power plants, transmission systems and distribution systems. The power plants generated the electric power, the transmission systems carried the electric power to the electric utilities' geographic service area, and the distribution system stepped the power down and distributed it to the end users. The transmission system was designed to accommodate large power plants and deliver bulk power to the distribution system. The distribution system was designed to provide lower voltage electricity to end users, but not to accommodate generation of electricity.

After Illinois electric utilities were disintegrated by the Restructuring Act, generators unaffiliated with the utility could compete to deliver power to customers, but the machines that were typically used were still interconnected to the transmission system. As generation technology improved and interest grew in low and no emissions generation, there was an increased demand for using the entire grid more flexibly, and permit interconnection not to just the transmission system but to the distribution system as well.

In 2005, and in the shadow of the new structure of energy generation, transmission, and distribution not only in Illinois, but throughout the United States, the EPAct required all states to decide whether to adopt interconnection rules based upon the technical standard IEEE 1547, which standardized interconnection to the distribution system. On July 26, 2006, this Commission initiated Docket No. 06-0525 to consider Section 1254 of the EPAct. 16 U.S.C.S. 2621(d)(15) On July 25, 2007, the Commission adopted IEEE 1547 with one exception. See ICC Docket No. 06-0525, Interim Order. Subsequent to the initiation of this docket, the Illinois Legislature passed, and the Governor signed into law, Senate Bill 0680 as Public Act 95-420 ("Net Metering Act"). (220 ILCS 5/16-107.5). The Net Metering Act directed the Commission to

"establish standards for net metering … and standards for the interconnection of eligible renewable generating equipment to the utility system." 220 ILCS 5/16-107.5(h) While the legislation was primarily concerned with net metering and renewable generating equipment, the Staff of the Illinois Commerce Commission ("Staff") has drafted and submitted the entirety of the rules developed by the workshop participants of Docket No. 06-0525. Therefore, while the Commission may only be obligated by the Net Metering Act to enact rules governing net metering and interconnection of renewable generating equipment, Staff believes that an interconnection rule governing all levels of distributed generation is appropriate instead of interconnection rules affecting net metering customers and renewable generators only.

Moreover, just prior to the passage of the Net Metering Act, Staff had been actively pursuing a consensus rule for distributed generation interconnection through workshops. Thus, when the Illinois Legislature passed the Net Metering Act into law, Staff was relatively prepared to proceed directly to this emergency rule, to fully comply with the Net Metering Act.

Staff has subsequently taken into consideration, in the short time allowed, the burden's imposed upon the utilities to quickly comply with these new standards, while meeting the Commission's need to comply with the legislative requirement to enact net metering and interconnection standards by April 1, 2008. In light of these considerations, Staff and the parties have developed a "safe harbor" clause that will allow for utilities to offer interconnection on just and reasonable terms, while reporting any deviations from the new standards.

Staff's attached emergency rule, therefore, brings Illinois in compliance with not only the specific legal requirements of the Net Metering Act, but also with Staff's understanding underlying policies of the Net Metering Act, which is legislatively mandated by April 1, 2008, and establishes interconnection standards for all interconnection customers.

To further explain Staff's emergency rule, it is important to note that the standard for each type of generator discussed within the rule is based upon the concept of "screens" and "levels." Screens examine the conditions that exist on the distribution system where the generator wants to install the equipment. Depending upon the equipment's type and capacity and the distribution system's characteristics, the rule determines whether the equipment can be safely installed at that location. If the equipment passes the screens for a given level, interconnection must be approved for that location under that level. If the equipment does not pass the screens for a given level, interconnection cannot occur at that location under that level. There are four levels of interconnection. The levels range from Level 1, which covers very small, inverter-based equipment, to Level 4, which applies to the interconnection of larger capacity machines that require the utility to install additional equipment. In general, the lower the level, the less strict the screens and the faster interconnection can occur.

Description of emergency rule

The proposed emergency rule was developed in consultation with interested parties including Commonwealth Edison Company, AmerenCIPS, AmerenIP, AmerenCILCO, MidAmerican, the Attorney General's Office, the Environmental Law and Policy Center, the Interstate Renewable Energy Council, and various elements of the federal bureaucracy, but Staff is solely responsible for its contents. Staff and the other workshop participants used the rules developed by the Maryland Commission Staff as a template for this rule, but did not treat Maryland's resolution as determinative.

The following describes the proposed rule section by section.

Section 466.10 Scope

This section notes that the rule applies only to state-jurisdictional interconnection (*i.e.*, interconnection to the distribution system, rather than the transmission system, which is FERC-jurisdictional) and to generators that are 10 MW or less. IEEE 1547 only applies to generators 10 MW and below.

Section 466.20 Interconnection Requirement

Requires each Illinois electric distribution company to offer interconnection on just and reasonable terms and conditions.

Section 466.30 Definitions

The Definitions section defines several terms that are unique to distribution interconnection.

Section 466.40 Technical standard

Notes that the technical standard is IEEE 1547.

Section 466.50 Interconnection requests

This section mandates that the customer must file an interconnection request with the utility that is accompanied by the relevant request fee, and that the request can be submitted electronically.

Section 466.60 General requirements

This section covers general aspects of interconnection. For example, the utility is required to have a single point of contact for generators. Also, multiple generators might have a single point of interconnection when technically feasible. There are requirements for how and when the generating facility is supposed to be physically isolated from the rest of the distribution system. And there is a provision that allows the utility to observe that the facility operates in the manner that is planned.

Section 466.70 Lab-certified equipment

Lab-certified equipment makes it eligible for expedited review for interconnection. This section details how equipment becomes lab-certified.

Section 466.80 Determining the review level

This section lists the general requirements that the generating facility has to meet in order to receive treatment under each level.

Section 466.90 Level 1 expedited review

This section details all the steps that the generator and utility need to take and the timeline that the parties need to follow in order to interconnect a Level 1 distributed generation facility to the distribution system. Level 1 is for inverter-based machines that have less than 10 kW of capacity and the utility does not have to construct distribution facilities to accommodate interconnection.

Section 466.100 Level 2 expedited review

This section details all the steps that the generator and utility need to take and the timeline that the parties need to follow in order to interconnect a Level 2 distributed generation facility to the distribution system. Level 2 is for machines that have less than 2 MW of capacity and the utility does not have to construct distribution facilities to accommodate interconnection.

Section 466.110 Level 3 expedited review

This section details all the steps that the generator and utility need to take and the timeline that the parties need to follow in order to interconnect a Level 3 distributed generation facility to the distribution system. Level 3 is for machines that have less than 10 MVA of capacity, that will use reverse power relays or other protection functions that prevent power flow onto the electric distribution system, and the utility does not have to construct distribution facilities to accommodate interconnection.

Section 466.120 Level 4 review

This section details all the steps that the generator and utility need to take and the timeline that the parties need to follow in order to interconnect a Level 4 distributed generation facility to the distribution system. Level 4 is for machines that have less than 10 MVA of capacity and do not qualify for treatment under Levels 1, 2 or 3.

Section 466.130 Disputes

This section discusses how disputes that arise from interconnection can be resolved. The Consumer Services Division is available to help resolve disputes.

Section 466.140 Records

This section requires that utilities maintain records of applications and interconnections for three years. The data should specify the level that is applied for and interconnected along with the type of facilities that are installed. It also requires that the utilities issue a report each year detailing this information. The section requires that the utilities retain studies conducted about the feasibility of, the system impacts of, or the facilities required for interconnections.